

### PATENT APPLICATION

### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of

Docket No: Q96083

Hidekazu KIMURA, et al.

Appln. No.: 10/586,850

Group Art Unit: 1745

Confirmation No.: 3460

Examiner: Not yet assigned

Filed: July 20, 2006

For:

FUEL CARTRIDGE FOR FUEL CELL AND FUEL CELL USING THE SAME

### SUBMISSION OF INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

For the Examiner's convenience, enclosed herewith is a copy of the English translation of the International Preliminary Report on Patentability (IPRP). It is assumed that copies of the cited references as required by §371(c) will be supplied directly by the International Bureau, but if further copies are needed, the undersigned will undertake to provide them upon request.

Respectfully submitted,

SUGHRUE MION, PLLC Telephone: (202) 293-7060 Facsimile: (202) 293-7860

WASHINGTON OFFICE 23373
CUSTOMER NUMBER

Date: October 18, 2006

Howard L. Bernstein Registration No. 25,665

### PATENT COOPERATION TREATY

From the INTERNATIONAL BUREAU

### PCT

NOTIFICATION OF TRANSMITTAL
OF COPIES OF TRANSLATION
OF THE INTERNATIONAL PRELIMINARY REPORT
ON PATENTABILITY
(CHAPTER I OR CHAPTER II
OF THE PATENT COOPERATION TREATY)

(PCT Rules 44bis.3(c) and 72.2)

To:

MIYAZAKI, Teruo 8th Floor, 16th Kowa Bldg. 9-20, Akasaka 1-chome Minato-ku, Tokyo 1070052 JAPON



Date of mailing (day/month/year) 31 August 2006 (31.08.2006)	•			
Applicant's or agent's file reference NEC04P299	IMPORTANT NOTIFICATION			
International application No. PCT/JP2005/000678	International filing date (day/month/year) 20 January 2005 (20.01.2005)			
Applicant NEC CORPORATION et al				

. '	Transmittal	of the	translation	to	the applicant.
-----	-------------	--------	-------------	----	----------------

<b>v</b>	The International Bureau transmits herewith a copy of the English translation of the international preliminary report on patentability (Chapter I).

The International Bureau transmits herewith a copy of the English translation of the international preliminary report on patentability (Chapter II).

2. Transmittal of the copy of the translation to the designated or elected Offices.

The International Bureau notifies the applicant that copies of that translation have been transmitted to the following designated or elected Offices requiring such translation:

None

The following designated or elected Offices, having waived the requirement for such a transmittal at this time, will receive copies of that translation from the International Bureau only upon their request:

AE, AG, AL, AM, AP, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EA, EC, EE, EG, EP, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OA, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

3. Reminder regarding translation into (one of) the official language(s) of the elected Office(s).

The applicant is reminded that, where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary report on patentability (Chapter II).

It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned within the applicable time limit (Rule 74.1). See Volume II of the PCT Applicant's Guide for further details.

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Authorized officer

Masashi Honda

Facsimile No. +41 22 338 82 70

Facsimile No. +41 22 338 82 70



### PATENT COOPERATION TREATY

## **PCT**

# INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY (Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44bis)

Applicant's or agent's file reference NEC04P299	FOR FURTHER ACTION	See item 4 below
International application No. PCT/JP2005/000678	International filing date (day/month/year) 20 January 2005 (20.01.2005)	Priority date (day/month/year) 23 January 2004 (23.01.2004)
International Patent Classification (8th See relevant information in Form F	n edition unless older edition indicated) PCT/ISA/237	
Applicant NEC CORPORATION		

1.	This international preliminary r International Searching Authori	eport on patentability (Chapter ty under Rule 44 bis. 1(a).	I) is issued by the International Bureau on behalf of the
2.	This REPORT consists of a total In the attached sheets, any refer to the international preliminary	ence to the written opinion of	the International Searching Authority should be read as a reference
3.	This report contains indications	relating to the following items	s:
	Box No. I	Basis of the report	,
	Box No. II	Priority	
	Box No. III	Non-establishment of opin applicability	ion with regard to novelty, inventive step and industrial
	Box No. IV	Lack of unity of invention	
	Box No. V		Article 35(2) with regard to novelty, inventive step or industrial explanations supporting such statement
	Box No. VI	Certain documents cited	
	Box No. VII	Certain defects in the inter	national application
	Box No. VIII	Certain observations on th	e international application
4.	The International Bureau will c not, except where the applicant date (Rule 44bis .2).	ommunicate this report to desi makes an express request und	gnated Offices in accordance with Rules 44bis.3(c) and 93bis.1 but er Article 23(2), before the expiration of 30 months from the priority
			Date of issuance of this report 22 August 2006 (22.08.2006)
	The International Bur	- · · · · · - · · · — · ·	Authorized officer
	34, chemin des Co 1211 Geneva 20, S		Masashi Honda
<u> </u>	mile No. +41 22 338 82 70		e-mail: pt08@wipo.int

#### PATENT COOPERATION TREATY

TRANSLATION INTERNATIONAL SEARCHING AUTHORITY WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1) Date of mailing (day/month/year) Applicant's or agent's file reference FOR FURTHER ACTION NEC04P299 See paragraph 2 below International application No. International filing date (day/month/year) Priority date (day/month/year) PCT/JP2005/000678 20.01.2005 23.01.2004 International Patent Classification (IPC) or both national classification and IPC Applicant NEC CORPORATION This opinion contains indications relating to the following items: Box No. I Basis of the opinion Box No. II Priority Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability Box No. IV Lack of unity of invention Reasoned statement under Rule 43bis. 1(a)(i) with regard to novelty, inventive step or industrial Box No. V applicability; citations and explanations supporting such statement Box No. VI Certain documents cited Box No. VII Certain defects in the international application Box No. VIII Certain observations on the international application **FURTHER ACTION** If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered. If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later. For further options, see Form PCT/ISA/220. For further details, see notes to Form PCT/ISA/220. Name and mailing address of the ISA/JP Authorized officer Facsimile No. Telephone No.

## WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/JP2005/000678

Box	No. I	Basis of this opinion
1.	With	regard to the language, this opinion has been established on the basis of the international application in the language in which it was, unless otherwise indicated under this item.
		This opinion has been established on the basis of a translation from the original language into the following language
		which is the language of a translation furnished for the purposes of international search (under Rule 12.3 and 23.1(b)).
2.	With	regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed nation, this opinion has been established on the basis of:
	a.	type of material
		a sequence listing
		table(s) related to the sequence listing
	b.	format of material
		in written format
		in computer readable form
	c.	time of filing/furnishing
		contained in the international application as filed.
		filed together with the international application in computer readable form.
		furnished subsequently to this Authority for the purposes of search.
3.		In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filled or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filled or does not go beyond the application as filled, as appropriate, were furnished.
4.	Add	itional comments:
		·
	•	
L		<u> </u>

## WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/JP2005/000678

l.	Statement			
	Novelty (N)	Claims	4, 8	_ YES
		Claims	1-3, 5-7, 9, 10	_ NO
	Inventive step (IS)	Claims	4	_ YES
		Claims	1-3, 5-10	_ NO
	Industrial applicability (IA)	Claims	1-10	_ YES
		Claims		NO

#### 2. Citations and explanations:

Document 1: JP, 2003-142135, A (Hewlett Packard Company), 16 May, 2003 (16.05.03), full text, & EP, 1306917, A2

Document 2: JP, 2003-217618, A (Hewlett Packard Company), 31 July, 2003 (31.07.03), full text, & EP, 1331684, A2

Document 3: JP, 2003-216832, A (Casio Computer Co., Ltd.), 2 August, 2002 (02.08.02), paragraphs [0060]-[0066], Fig. 4, & EP, 1306917, A2

Document 4: JP, 2001-93551, A (Toshiba Corporation), 6 April, 2001 (06.04.01), paragraph [0019], Fig. 3, & EP, 1087455, A2

### Claims 1-3, 5, 7, 9 and 10

The subject matters of claims 1-3, 5, 7, 9 and 10 do not appear to be novel or to involve an inventive step, since they are described in document 1 or 2 cited in the ISR.

### Claims 1, 7, 9 and 10

The subject matters of claims 1, 7, 9 and 10 do not appear to be novel or to involve an inventive step, since they are described in document 3 (paragraphs [0060]-[0066] and Fig. 4).

#### Claim 8

The subject matter of claim 8 does not appear to involve an inventive step in view of documents 1 and 2 and document 4 (paragraph [0019] and Fig. 4) cited in the ISR.

It is publicly known that a selective osmotic membrane is used for adjusting the internal pressure of a fuel cartridge as described in document 4.

#### Claim 4

The subject matter of claim 4 is neither described in any of the documents cited in the ISR nor obvious to a person skilled in the art.

## WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/JP2005/000678

Certain	published documents (Rule	43bis.1 and	70.10)		
	Application No. Patent No.		Publication date (day/month/year)	Filing date (day/month/year)	Priority date (valid cla (day/month/year)
J	P 2005-71713 A	[EX]	17.03.2005	21.08.2003	
				<del></del>	
Non-wr	itten disclosures (Rule 43 <i>b</i> Kind of non-written di		Date of non-written o	lisclosure referri	ate of written disclosure  ng to non-written disclosure  (day/month/year)
Non-wr				lisclosure referri	
Non-wr			Date of non-written o	lisclosure referri	ng to non-written disclosur
Non-wr			Date of non-written o	lisclosure referri	ng to non-written disclosur
Non-wr			Date of non-written o	lisclosure referri	ng to non-written disclosur
Non-wr			Date of non-written o	lisclosure referri	ng to non-written disclosur
Non-wr			Date of non-written o	lisclosure referri	ng to non-written disclosur
Non-wr			Date of non-written o	lisclosure referri	ng to non-written disclosur